

Identification Information

I need to provide identification information for the metadata resource.

Overview

A principle goal of metadata is to ensure that the data they describe can be independently understood and used effectively. The ISO Identification Information package provides fields for describing and unambiguously identifying objects associated with the resource.

Recommendations

The ISO 19115 Identification Information section includes fields for describing the resource, and for unambiguously identifying objects associated with the resource.

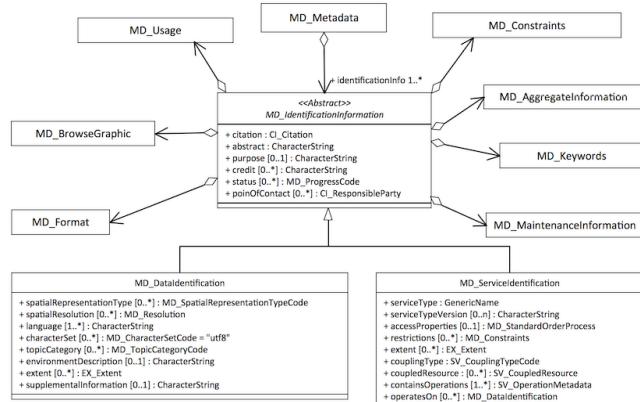
The Identification Information section of the metadata includes a citation to the resource being described. This citation should include a title, a unique identifier, and the version (edition) of the resource.

- Add a citation for the resource to the metadata.
- Add unique identifiers to the citation.
- Add descriptive keywords to the metadata.
- Add a resource abstract to the metadata.
- Add a purpose statement to the metadata.

Conceptual Model

The MD_IdentificationInformation Object is an Abstract Object that holds general identification information for all kinds of objects. It is required and there can be any number of these objects in an MD_Metadata container. At present the MD_Identification Object can be instantiated either as a MD_DataIdentification Object, for datasets, or a MD_ServiceIdentification Object, for services.

The MD_Identification Object includes six simple elements shown inside the box in the Figure and eight associated complex objects shown as boxes outside of the MD_Identification Object. The simple elements are primarily textual descriptions that might be presented to users in a summary document or searched using full-text search mechanisms. The organizational/human contact is also included. The complex objects are described in more detail below.



Implementation (XML)

This example shows the XML representation of the information required by ISO 19115 and NASA. As indicated in the conceptual model above, many important optional items also exist in the identification information.

```
<gmd:MD_DataIdentification xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.isotc211.org/2005/gmd http://www.isotc211.org/2005/gmd/gmd.xsd "
  xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:gmd="http://www.isotc211.org/2005/gmd">
  <gmd:citation>
    <gmd:CI_Citation>
      <gmd:title>
```

```
<gco:CharacterString>Resource Title</gco:CharacterString>
</gmd:title>
<!--
    A date is required for each citation in ISO 19115 (this
requirement was dropped in 19115-1).
    The date is provided in ISO 8601 format (see
https://en.wikipedia.org/wiki/ISO\_8601 ).

-->
<gmd:date>
    <gmd:CI_Date>
        <gmd:date>
            <gco:Date>2011</gco:Date>
        </gmd:date>
        <gmd:dateType>
            <!--
                CI_DateTypeCode
```

The CI_DateTypeCode gives the type of the date. The list of standard date types is available at
http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI_DateTypeCode (ISO 19115, ISO 19115-2) and
<http://standards.iso.org/iso/19115/resources/Codelist/cat/codelists.html> (ISO 19115-1).

When necessary, communities can extend this list with types that are required in their metadata. For example, the list extended by NOAA is shown at
https://geo-ide.noaa.gov/wiki/index.php?title=ISO_19115_and_19115-2_CodeList_Dictionaries#MD_DateTypeCode .

The location of the codeList is given in the codeList attribute. The value is given in the codeListValue attribute and as the content of the gmd:MD_KeywordTypeCode element

```
-->
    <gmd:CI_DateTypeCode codeList="
http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI\_DateTypeCode
        codeListValue="creation">creation</gmd:CI_DateTypeCode>
    </gmd:dateType>
    </gmd:CI_Date>
</gmd:date>
<!--
    The version of the resource is given in the edition element.
-->
<gmd:edition>
    <gco:CharacterString>Version</gco:CharacterString>
</gmd:edition>
</gmd:CI_Citation>
</gmd:citation>
<!--
```

The abstract provides a brief description of the resource that includes information a user can use to decide if it fits their needs.

```
-->
<gmd:abstract>
  <gco:CharacterString>abstract</gco:CharacterString>
</gmd:abstract>
<!--
  The purpose provides a brief description of the resource that includes information a user can use to decide if it fits their needs.
-->
<gmd:purpose>
  <gco:CharacterString>purpose</gco:CharacterString>
</gmd:purpose>
<!--
  Many types of keywords are available for facilitating discovery and understanding of NASA data
-->
<gmd:descriptiveKeywords>
  <gmd:MD_KeywordTypeCode>
    <gmd:keyword>
      <gco:CharacterString>this is a keyword</gco:CharacterString>
    </gmd:keyword>
    <gmd:type>
      <!--
        gmd:MD_KeywordTypeCode
```

The MD_KeywordTypeCode gives the type of the keyword group. The list of standard keyword types is available at http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI_KeywordTypeCode (ISO 19115, ISO 19115-2) and <http://standards.iso.org/iso/19115/resources/Codelist/cat/codelists.html> (ISO 19115-1).

When necessary, communities can extend this list with types that are required in their metadata.

For example, the list extended by NOAA is shown at

https://geo-ide.noaa.gov/wiki/index.php?title=ISO_19115_and_19115-2_CodeList_Dictionaries#MD_KeywordTypeCode .

The location of the codeList is given in the codeList attribute. The value is given in the codeListValue attribute and as the content of the gmd:MD_KeywordTypeCode element

```
-->
<gmd:MD_KeywordTypeCode
  codeList="http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#MD_KeywordTypeCode"
    codeListValue="theme">theme</gmd:MD_KeywordTypeCode>
  </gmd:type>
```

```
</gmd:MD_Keywords>
</gmd:descriptiveKeywords>
<!--
-->
<gmd:language>
  <gmd:LanguageCode codeList=""
```

```
codeListValue="">eng</gmd:LanguageCode>
  </gmd:language>
</gmd:MD_DataIdentification>
```

Implementation (NcML)

```
<nc:netcdf xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://www.unidata.ucar.edu.namespaces/netcdf/ncml-2.2"
  xmlns:nc="http://www.unidata.ucar.edu.namespaces/netcdf/ncml-2.2">
  <nc:group name="gmd:MD_DataIdentification">
    <nc:attribute name="__role" value="metadataRoot"/>
    <nc:attribute name="__type" value="gmd:MD_DataIdentification"/>
    <nc:attribute name="@xsi:schemaLocation"
      value="http://www.isotc211.org/2005/gmd
      http://www.isotc211.org/2005/gmd/gmd.xsd"/>
    <nc:group name="gmd:citation">
      <nc:attribute name="__role" value="gmd:citation"/>
      <nc:attribute name="__type" value="gmd:CI_Citation"/>
      <nc:attribute name="gmd:title"
        value="Resource Title"
        __isoType="gco:CharacterString"/>
      <!--
        A date is required for each citation in ISO 19115 (this
        requirement was dropped in 19115-1).
        The date is provided in ISO 8601 format (see
        https://en.wikipedia.org/wiki/ISO\_8601.
      -->
      <nc:group name="gmd:date">
        <nc:attribute name="__role" value="gmd:date"/>
        <nc:attribute name="__type" value="gmd:CI_Date"/>
        <nc:attribute name="gmd:date" value="2011"
          __isoType="gco:Date"/>
        <!--
          CI_DateTypeCode
        The CI_DateTypeCode gives the type of the date. The list of
        standard date types is available
        at
        http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI\_DateTypeCode (ISO 19115, ISO 19115-2)
        and
        http://standards.iso.org/iso/19115/resources/Codelist/cat/codelists.html
        (ISO 19115-1).
        When necessary, communities can
        extend this list with types that are required in their
        metadata. For example, the list extended by NOAA
      -->
```

is shown at
https://geo-ide.noaa.gov/wiki/index.php?title=ISO_19115_and_19115-2_CodeList_Dictionaries#MD_DateTypeCode.

The location of the codeList is given in the codeList attribute. The value is given in the codeListValue attribute and as the content of the gmd:MD_KeywordTypeCode element

```
-->
<nc:group name="gmd:dateType">
    <nc:attribute name="__role" value="gmd:dateType"/>
    <nc:attribute name="__type" value="gmd:CI_DateTypeCode"/>
    <nc:attribute name="@codeList"
        value="http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI_DateTypeCode"/>
        <nc:attribute name="@codeListValue" value="creation"/>
        <nc:attribute name="value" value="creation"/>
    </nc:group>
</nc:group>
<!--
The version of the resource is given in the edition element.
-->
<nc:attribute name="gmd:edition" value="Version"
__isoType="gco:CharacterString"/>
</nc:group>
<!--
The abstract provides a brief description of the resource that
includes information a user can use to decide if
it fits their needs.
-->
<nc:attribute name="gmd:abstract"
    value="abstract"
    __isoType="gco:CharacterString"/>
<!--
The purpose provides a brief description of the resource that
includes information a user can use to decide if
it fits their needs.
-->
<nc:attribute name="gmd:purpose"
    value="purpose" __isoType="gco:CharacterString"/>
<!--
Many types of keywords are available for facilitating discovery and
understanding of NASA data
-->
<nc:group name="gmd:descriptiveKeywords">
    <nc:attribute name="__role" value="gmd:descriptiveKeywords"/>
    <nc:attribute name="__type" value="gmd:MD_Keywords"/>
    <nc:attribute name="gmd:keyword"
        value="this is a keyword"
        __isoType="gco:CharacterString"/>
<!--
gmd:MD_KeywordTypeCode
```

The MD_KeywordTypeCode gives the type of the keyword group. The list of standard keyword types is available at
http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI_KeywordTypeCode (ISO 19115, ISO 19115-2)
and
<http://standards.iso.org/iso/19115/resources/Codelist/cat/codelists.html> (ISO 19115-1).

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For example, the list extended by NOAA is shown at

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The location of the codeList is given in the codeList attribute. The value is given in the codeListValue attribute and as the content of the gmd:MD_KeywordTypeCode element

```
-->
<nc:group name="gmd:type">
    <nc:attribute name="__role" value="gmd:type"/>
    <nc:attribute name="__type" value="gmd:MD_KeywordTypeCode"/>
    <nc:attribute name="@codeList"
```

value="http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#CI_DateTypeCode" />

```
        <nc:attribute name="@codeListValue" value="theme"/>
        <nc:attribute name="value" value="theme"/>
```

```
    </nc:group>
```

```
</nc:group>
```

```
<!--
```

The language of the resource is required by ISO 19115

```
-->
```

```
<nc:group name="gmd:language">
    <nc:attribute name="__role" value="gmd:language"/>
    <nc:attribute name="__type" value="gmd:LanguageCode"/>
    <nc:attribute name="@codeList" value="" />
    <nc:attribute name="@codeListValue" value="" />
    <nc:attribute name="value" value="eng"/>
```

```
</nc:group>
```

```
<nc:group name="namespace_1">
```

```
    <nc:attribute name="prefix" value="xml"/>
```

```
    <nc:attribute name="uri"
```

value="<http://www.w3.org/XML/1998/namespace>" />

```
    </nc:group>
```

```
<nc:group name="namespace_2">
```

```
    <nc:attribute name="prefix" value="xsi"/>
```

```
    <nc:attribute name="uri"
```

value="<http://www.w3.org/2001/XMLSchema-instance>" />

```
    </nc:group>
```

```
<nc:group name="namespace_3">
```

```
    <nc:attribute name="prefix" value="gco"/>
```

```
<nc:attribute name="uri"
value="http://www.isotc211.org/2005/gco"/>
</nc:group>
<nc:group name="namespace_4">
<nc:attribute name="prefix" value="gmd"/>
<nc:attribute name="uri"
value="http://www.isotc211.org/2005/gmd"/>
</nc:group>
```

```
</nc:group>
</nc:netcdf>
```

Notes
